Author Index

Aernoudt, E., 35	Jackson, P. J., 29	Natishan, P. M., 1
Ahmad, M. S., 205	Jiansheng, W., 19	Nazabal, J. L., 93
Arsenault, R. J., 111	Jun, Z., 179	
•	,,	Sakr, M. S., 105
Baudelet, B., 173	Kant, R. A., 1	Sartwell, B. D., 1
Blum, W., 145	Karimi, A., 191	Shiflet, G., 67
	Kenawy, M. A., 105	Shim, G., 121
Dongliang, L., 19	Kim, H. J., L1	Smith, D. A., 67
	Kramer, I. R., 111	
El-Rihail, I., 205	Kuhlmann-Wilsdorf, D., 53	Urcola, J. J., 93
	Lain, J., 173	Weckert, E., 145
Feng, C. R., 111		Wei, R. P., 121
Fuentes, M., 93	McCafferty, E., 1	
	Moore, P. G., 1	Xianfeng, C., 19
Gil Sevillano, J., 35	Morgan, G. C., 159	-
	Mostafa, M. T., 105	Yasin, M. J., 205
Hammond, C., 159		Yu-Quan, S., 179
Hong, S. I., 211, 1	Nabarro, F. R. N., 29	
Hubler, G. K., 1	Nagy, M. R., 105	Zihlif, A. M., 205



Subject Index

Alloys

on the creep activation energies of alloys, 221 superplastic deformation properties of β -Ti alloys,

Aluminium

effect of θ precipitates on creep deformation in Al-2.5 wt.% Cu, 105

on the interpretation of the "internal stress" determined from dip tests during creep of Al-5 at.% Mg, 145

Austenite

the transition from multiple- to single-peak recrystallization during the hot working of austenite. 93

Cavitation erosion

cavitation erosion of a duplex stainless steel, 191 Celion carbon fibres

the temperature dependence of the electrical resistivity of Celion carbon fibres, 205

Copper

effect of θ precipitates on creep deformation in Al-2.5 wt.% Cu, 105

Corrosion

corrosion fatigue and electrochemical reactions in modified HY130 steel, 121

Naval Research Laboratory surface modification program: ion beam and laser processing of metal surfaces for improved corrosion resistance, 1

Creep

effect of θ precipitates on creep deformation in Al-2.5 wt.% Cu, 105

on the creep activation energies of alloys, 221 on the interpretation of the "internal stress' determined from dip tests during creep Al-5 at.% Mg,

the role of the surface layer on the power law breakdown in high temperature creep, 111

Crystals

dislocation behaviour during cyclic deformation on niobium single crystals, 19

Cyclic deformation

dislocation behaviour during cyclic deformation on niobium single crystals, 19

Deformation

effect of θ precipitates on creep deformation in Al-2.5 wt.% Cu, 105

superplastic deformation properties of β -Ti alloys, 159

Deformed materials

low-energy dislocation structures in highly deformed materials, 35

Dip tests

on the interpretation of the "internal stress" determined from dip tests during creep of Al-5 at.% Mg, 145

Dislocation

dislocation behaviour during cyclic deformation on niobium single crystals, 19

low-energy dislocation structures in highly deformed materials, 35

low energy dislocation structures in interfaces, 67 properties and effects of low energy dislocation structures, 53

Duplex

cavitation erosion of a duplex stainless steel, 191

Electrochemical

corrosion fatigue and electrochemical reactions in modified HY130 steel, 121

Elongation

temperature dependence of elongation in Zircaloy-4, L1

Fatigue

corrosion fatigue and electrochemical reactions in modified HY130 steel, 121

Hot working

the transition from multiple- to single-peak recrystallization during the hot working of austenite, 93

Interfaces

low energy dislocation structures in interfaces, 67 Ion beam

Naval Research Laboratory surface modification program: ion beam and laser processing of metal surfaces for improved corrosion resistance, 1

Laser processing

Naval Research Laboratory surface modification program: ion beam and laser processing of metal surfaces for improved corrosion resistance, 1

Magnesium

on the interpretation of the "internal stress", determined from dip tests during creep of Al-5 at.% Mg. 145

Meta

forming limit diagram of sheet metal in the negative minor strain region, 137

technological analysis of the superplastic bulging of a metal sheet, 179

Metal surfaces

Naval Research Laboratory surface modification program: ion beam and laser processing of metal surfaces for improved corrosion resistance, 1

Niobium

dislocation behaviour during cyclic deformation on niobium single crystals, 19

Power law breakdown

the role of the surface layer on the power law breakdown in high temperature creep, 111

Recrystallization

the transition from multiple- to single-peak recrystallization during the hot working of austenite, 93

Resistivity

the temperature dependence of the electrical resistivity of Celion carbon fibres, 205

Stainless steel

cavitation erosion of a duplex stainless steel, 191 Steel

cavitation erosion of a duplex stainless steel, 191 corrosion fatigue and electrochemical reactions in modified HY130 steel, 121

Strain

forming limit diagram of sheet metal in the negative minor strain region, 137 Stress

the stress field of an isolated subgrain, 29

Subgrain

the stress field of an isolated subgrain, 29

Superplastic

superplastic deformation properties of β -Ti alloys, 159

Superplastic bulging

technological analysis of the superplastic bulging of a metal sheet, 179

Surface modification

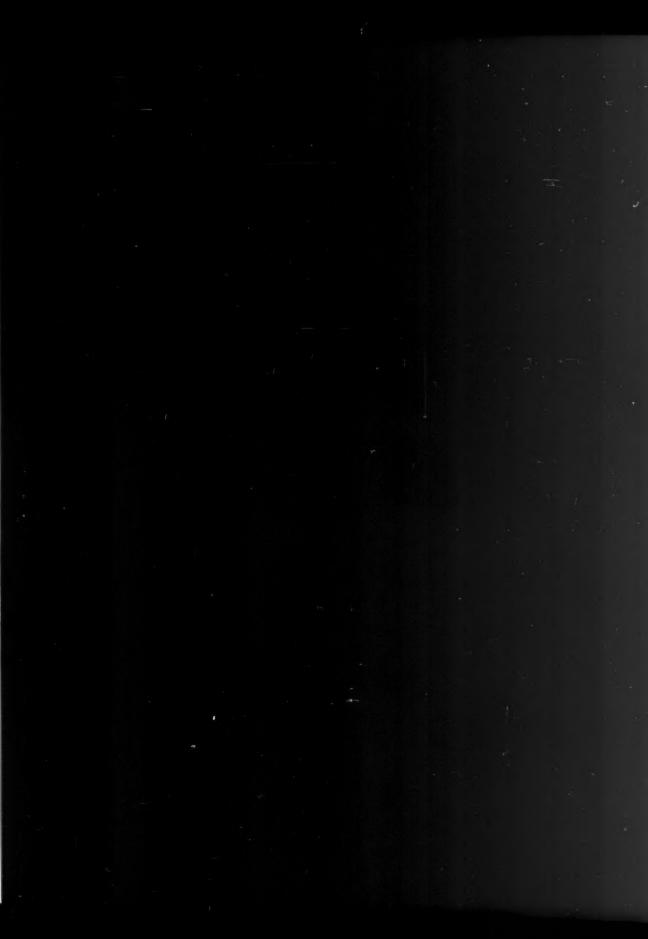
Naval Research Laboratory surface modification program: ion beam and laser processing of metal surfaces for improved corrosion resistance, 1

Titanium

superplastic deformation properties of β -Ti alloys, 159

Zircaloy-4

temperature dependence of elongation in Zircaloy-4, L1



CONTENTS

REVIEW

Naval Research Laboratory surface modification program: ion beam and laser processing of metal surfaces for improved corrosion resistance.	1
E. McCafferty, G. K. Hubler, P. M. Natishan, P. G. Moore, R. A. Kant and B. D. Sartwell (Washington, DC, U.S.A.)	
Dislocation behaviour during cyclic deformation of niobium single crystals	19
The stress field of an isolated subgrain	29
Low energy dislocation structures in highly deformed materials	35
LEDS: properties and effects of low energy dislocation structures	53
Low energy dislocation structures in interfaces	67
The transition from multiple- to single-peak recrystallization during the hot working of austenite J. L. Nazábal, J. J. Urcola and M. Fuentes (San Sebastián, Spain)	93
Effect of θ precipitates on creep deformation in Al-2.5wt.%Cu	105
The role of the surface layer on the power law breakdown in high temperature creep I. R. Kramer, C. R. Feng and R. J. Arsenault (College Park, MD, U.S.A.)	111
Corrosion fatigue and electrochemical reactions in modified HY130 steel	121
Forming limit diagram of sheet metal in the negative minor strain region	137
On the interpretation of the "internal stress" determined from dip tests during creep of Al-5at.%Mg W. Blum and E. Weckert (Erlangen, F.R.G.)	145
Superplastic deformation properties of β -Ti alloys	159
Technological analysis of the superplastic bulging of a metal sheet	179
Cavitation erosion of a duplex stainless steel	191
The temperature dependence of the electrical resistivity of Celion carbon fibres	205
CORRESPONDENCE	
On the creep activation energies of alloys	211
CONFERENCE CALENDAR	219
ERRATUM	225
LETTER	
Temperature dependence of elongation in Zircaloy-4	L1
AUTHOR INDEX	227
SUBJECT INDEX	229

